Index

1. Safety notes of Gas Powered / Electrical Powered Fry Pot	2
2. Technical Data	6
3. Control Panel	7
4. Basic Operation	8
5. Enquiry	9
6. Error and Alarm	9
7. Program	9
8. Product Parameter	10
9. Special parameter	11
10. Time and Date	12
11. Oil change over reset	13
12. Interior Parameter Attached: Open fry pot LCD Monitor User's manual	13
13. Wiring	23
14. Oil Pump	20
15. Other operation instructions	19
16. Wiring diagram of electrical fry pot	23
17. Electrical Heating unit Assembly	21
18. Exterior Structure	22
19. Operation instruction of burner control unit for gas fryer	24

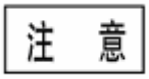
Safety notes of Gas Powered / Electrical Powered Fry Pot

To protect people from being hurt, electrical shock, poisoned and fire hazard, please make sure that following instructions are followed. Please read this manual with attention and keep this manual, so that the manual will be referenced during operation. Please also read and note the indications and alarm notices, so that those rules are abided by.

Alarm, safety instruction, and important notes

Ignoring this notice would result in personal injury, death or fire hazard.

Ignoring this notice would result in personal injury



Ignoring this notice would result in malfunction of this machine or cast negative impact on its performance.

Please do use Air break switch correspondent to power rate of this machine.
Don't touch power cable with wet hand to avoid possible electrical shock

Don't put power cable under any table or chair or any other hard object, especially don't put cable under any location, which might be under potential hazard of stress of being damaged by sharp corner of metal part. Please also note not to put cable on passageway.

For gas powered fryers, vent has to be fixed on top of exhaust outlet by taking the exhaust to outdoors, personal might be poisoned otherwise!

Food shall not be too wet for fry hot oil splash, which might result personal injury.

To avoid possible spill of oil by over scale food being put for fry, which might result in fire hazard, quantity of

food being put fry has to be under suggested limitation.

Cable shall be changed as soon as scratch, breakage or damage is discovered, or it might result in electrical shock or fire hazard. YCW or YZW flexible cable shall be selected for cable replacement with correct diameter of cord correspondent to power rate.

Power switch of all pole disconnection function, fuse shall be fixed nearby for the fryer; grounding end has to function correctly correspondent to relevant standard and regulation to ensure personal safety. Neglecting the above instruction might result personal injury.

Socket, plug and cable have to be correspondent to specific requirement of power rate of this machine. Make sure that power cable is made for Maximum current of this machine stated. Fire hazard might be result in case working current exceeds capacity of cable fixed.

Cover of power unit box shall not be opened or it has to be opened by licensed technician, or it might result in personal injury.

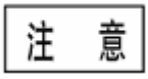
The machine is common grade water proof designed and fabricated. Grade of water proof: IPX4. Therefore cleaning by submerging the machine under water is not allowed and could result in personal injury or bad damage to the fryer.

Fry temperature shall not exceed 200℃, or it would result in fire hazard and food safety problem.

Voltage of power connected to the machine has to be correspondent to nominal voltage stated on data plate of machine. 3 phases 4 cables to be connected to the machine, neutral line has to be connected correctly. Maximum fluctuation of voltage is +5%--10% of nominal value. Neglecting this instruction would result in malfunction of machine.

The plug of machine has to be well connected to the socket, or it could result in fire hazard.
To avoid accident, plug shall be disconnected in thunder season or in case long time no use.
Unplugging pc r cable has to done with dry hand, don't pull power cable, or it would result in its breakage.
Voltage pole of this machine locates at the bottom of the machine. It is connected with several electrical units to avoid voltage deviation.

Disconnect main power switch of power supply line in case connecting, dismantling or unplugging cable.
Check connection and control of all electrical components before start machine.
All electrical related parts has to be installed, wired and serviced by licensed technician.

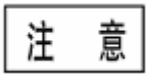


Don't touch heating unit to avoid possible injury after machine is connected to power

The machine shall be protected from exposing in raining and humidity.
The machine shall not be placed in corrosive environment, shall be protected from vibration and shall not be put up side down.

Before connecting with power and heating happens, liquid form oil has to be filled into pot. Oil level has to be kept above "MIN." mark and lower than "MAX." mark. Neglecting this instruction may result in accident or personal injury.

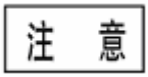
Place the machine away from explosive device and open fire.



Used oil with foreign substance shall not be used in machine to avoid over produced soot and oil boil.

Safety Guide

Don't place the machine at hereunder location to avoid malfunction lead by mis-operation
Unsteady table or counter
Where there is explosive or flammable substance.
Where there is too high or too low temperature, humidity and dust
Where voltage might be unsteady
Where there might be no correct grounding facilities.
Where children or handicapped people, people with mental illness may possibly reach.
Pay attention to possible pollution lead by frying. Cooker hood shall be fixed wherever fryer locates



Operation Notice

Machine shall be operated by dedicated personal with sufficient knowledge of machine operation. The machine is not design for people under working age, or group of handicapped and metal illness.

The cover is designed to keep cleanness and temperature of fryer. Make sure there is no water drop on cover to avoid hot oil splash, which might result in personal injury.

The fryer has to be kept away from customer, to avoid possible personal injury.

Machine has to be moving with care, locating error with carefully, don't slam or hammer the machine.

It is a handle at the back-top of basket. Hang the basket on the rack after fry to get rid of remaining oil. Large food piece may be fried in pot directly.

The maximum working temperature of the pot is 200℃. Whenever there is malfunction of temperature control, the temperature limit control in the control unit will work to cut off heating power. The protecting has manual reset mechanism, only after the temperature is below 150℃ could the protect be reset and heating then start again.

Instruction of malfunction

Please stop using the machine for any malfunction. Then break off power connection and connect distributor. Inform the distributor for the name, type, description of error to get prompt solution.

Don't use the machine in case of any malfunction. The user shall not dismantle or try to repair the machine by itself, except those daily maintenances listed on user's manual, please contact license personals for maintenance or adjustment/setup to avoid possible electrical shock and accident.

Stop using machine is case any oil leaking is discovered. Contact distributor or repair the machine by experienced personal

Technical Data

Type / Parameter	OFE-321	OFE-322	OFG-321	OFG-322
Nominal Voltage	～3N400V	～3N400V	～220V	～220V
Power Rate	14.2kw	14.2+13.5kw	700W GAS 40000 Cal	900W 80000Cal
Temperature Range	Room Temperature -200℃	Room Temperature -200℃	50-200℃	50-200℃
Capacity	25L	25L+25L	25L	25L+25L
Frequency	50Hz	50Hz	50Hz	

Before Using

1、Check if power is firmly connected 1 time, according to installation guide.

2、Proper height of oil level is expected during operation, oil level shall be in between "MIN" and "MAX" mark in the machine and at least 2-3 centimeter above heating unit.

Control Panel User's Guide

The operation manual includes basic operation guiding and program guiding for control panels for machine including OFE-320(321\322\323)

1、Control Panel Indication

Index	Name	Function
1		Light on when heating happens, dark otherwise
2	Digital Display	Displays oil temperature in pot, Frying Timer and data of program.
3		Light "on", temperature is not ready for Fry
4		Light "on", temperature is ready for Fry
5		inquiry operation data and information, switch parameter in program mode
6		Adjust set value of current parameter in program mode
7		
8		Check every parameter in program mode
9		Start and stop timing for fry, quality timing; enter into clean mode in melting mode
10		Mark name of product
11		用来选择将要烹炸的产品。 Select product to be fried

Basic Operation

1.Off Mode

Machine enters into "off mode" and main power switch is disconnected or oil discharge valve is "closed" (connected). Machine enters into "on mode" when oil discharge valve is "on" (disconnected) at the same time the main power switch is connected. Make sure oil is filled to pot, press "1", enter into operation mode.

2. Melt Mode

Machine enter into fry mode directly when temperature is above 110℃, machine enter into melt mode otherwise.

In melting mode, keep pressing "product" button to end Melting and enter into fry mode.

3. Clean mode

Press timing button to enter into clean mode from melting mode. Hand confirmed is needed to enter into clean mode.

Machine enters into clean operation in clean mode when set clean temperature is reached. Machine buzzes when timing of cleaning ends. Exit by turning off the machine.

4. Cooking mode

Cooking mode is set for 1 basket and 2 baskets. 1 timer works when machine works with only one basket. 2 timer works when machine works with 2 baskets

5. Idle Mode

Machine enters into idle mode when the mode is selected. There are 2 different ways to neter into idle mode.

Enter into idle mode by timer control;

When P12 button is set for idle key, press the button to enter into idle mode.

6. Oil Filtration locking.

Oil filtration reminding is shown in case the function is selected when fry time and percentage accumulated is reached. Machine enters into oil filtering lock mode in case the function is selected when fry time and percentage accumulated is reached.

Oil filtration locking resets when oil discharge valve "closes" (connected) to more than 1 half minute.

Enquiry

Press INO to check operation

1. current oil temperature in pot
2. Set temperature of heating control
3. remaining number oil filtering cycles
4. current time and date

Error and alarm

for alarm hereunder

Index	Display	Explaination
1	E-5 OIL TOO HOT	Oil too hot
2	E-6 OIL TEMP SENSOR FAILED	Sensor fail
3	FILTER LOCKOUT	Filter lock
4	FILTER SUGGESTED	Filtering suggested
5	CHANGE OIL SOON	Oil change reminding

Program

Press PROG button and hold for 1 second to enter into parameter program mode. Press and hold for 5 seconds to enter into LEVEL 2 program mode; press PROG again in L-2 mode to enter (1) "SP PROG" (special parameter program) ；（2）CLOCK SET (date and time set) ；（3）internal parameter and factory testing program mode.

In program mode, exit by pressing "PROG" and hold the button for 2 second. System exits automatically when there is no operation for 20 seconds or 2 minutes.

Products parameter

Setting 12 parameters for each product; input password 111 to enter before setting, select product to be set from product selecting page.

Parameters to be set

Code	Functions
（NAME）	Setting product name
（COOK TIME）	Setting Cooking time
（TEMP）	Setting Fry Temperature
（COOK ID）	Setting product code
（LOAD COMP）	Setting temperature compensation grade
（LCOMP REF）	Setting temperature compensation reference point
(ALARM SETTING)	Setting alarm time, 4 alarms to be set Max.
（QUALITY TMR）	Setting quality time
(OIL FILTERING SETTING)	in "Global" Mode, setting "FILTER INCL" to select if times of oil filtration will be counted. in "mixed" mode, setting Oil filtration times

Special Parameters

Setting SP PROG for hereunder parameters

Code	Function
SP-1	（℉ or ℃） select temperature mode ℉ or ℃
SP-2	NAL
SP-3	NAL
SP-4	NAL
SP-5	NAL
SP-6	NAL
SP-7	Melting mode selecting, 1 – liquid form oil, 2 – solid form oil
SP-8	Idle mode Hereunder parameters are selected in idle mode.
SP-8A	Setting idle heating temperature
SP-8B	Setting idle timing
SP-8C	Setting P12 for idle button
SP-9	Select Oil Filtering Reminding "Off" – no oil filtering function Setting oil filtering limitation on different products Setting uniformed oil filtering limitation
SP-9A	Percentage is calculated when SP-9 value is set to "2-MIXED" Counts of time of oil filtering is calculated when SP-9 value is set to "3-GLOBAL"
SP-9B	Using oil filter lock
SP-9C	Percentage is calculated when SP-9 value is set to "2-MIXED" Counts of time of oil filtering is calculated when SP-9 value is set to "3-GLOBAL"
SP-9D	Oil filtering temperature when SP-9 valve is set to "2-MIXED"
SP-10	1,COOK 2,SELECT。 Select Start mode 1,COOK 2,SELECT。
SP-11	NAL
SP-12	NAL
SP-13	Select basket number 1 or 2
SP-14	NAL

SP-15	Administrator Pass word setting Password is 3-8 digitals, inputted by product keyboard.
SP-16	Oil change reset password
SP-17	Setting oil change cycles
SP-18	Setting oil change time
SP-19	NAL
SP-20	Setting cleaning time
SP-21	Setting Cleaning Temperature

Time and date

Code	Function
CS-1	Year set
CS-2	Month Set
CS-3	Date Set
CS-4	Clock set
CS-5	Minute Set
CS-6	Set Hour mode
CS-7	Set Second clock
CS-8	Set week day

In date setting, twinkle of year, month, day, hour, minute and hour set hour mode shows the current parameter. Here are their codes

Code	Month	Code	Weekday
JAN	1	MON	Monday
FEB	2	TUE	Tuesday
MAR	3	WED	Wednesday
APR	4	THU	Thursday
MAY	5	FRI	Friday
JUN	6	SAT	Saturday
JUL	7	SUN	Sunday
AUG	8		
SEP	9		
OCT	10		
NOV	11		
DEC	12		

Oil Change Reset

Press Info+Prog at the same time to enter into "REVIEW USAGE" page. Press "Prog" to check all parameter accumulated until it gets "RESET_USG" page. Press oil change reset password, reset oil change add up parameter, note date, counting starts from 0. In oil change page, Press Info+Prog at the same time to exit.

Code	FUNCTION
REVIEW USAGE SINCE NOV-14	Display date of last oil change
PWR ON HRS 6	add up of heating time
TOTAL CK 20	add up of timed fry cycles
QUIT COOK 11	add up of break off fry times
OIL WEAR 'A' 40%	Oil consumption percentage counted by number of cycles of timed fries.
OIL WEAR 'B' 20%	Oil consumption percentage counted by add up of heating time
RESET USG _____	Input oil change reset password. PW. Displayed correctly. -USAGE RESET-

Internal data

Input password; enter heating control parameter and system reset

Input Password "0005" to enter into heating control parameter setting

CODE	FUNCTION
HC RT	Setting temperature correction
HC HP	Setting Temperature Sale
HC DB	Setting heating dead zone
HC TCM	Setting Control Calculation Mode
HC TOMIN	Setting Minimum output
HC TOC	Setting heating output cycle time

Input Password "0018" to enter into system reset

Reset system parameters

OPEN Fryer LCD Monitor User's Manual

A、Control Panel

B、 Control Panel Element

Index	Name	Function
1		Light "on" during heating, Light "dark" otherwise
2	LCD CN/EN	Display Oil Temperature, Cooking timer and back counting, for parameter and Program
3		Oil temperature doesn't fit for fry when "Wait" Light "on" or Blinking.
4		Ready Light "on", Oil temperature read for "cook"
5		To enter into Status Enquiry, and to move cursor when setting product name and ID
6		Adjust current Parameter Setting in program mode
7		
8		To enter into Program Mode, and to move cursor when setting product name and ID
9		Start and stop cooking timing, timing for quality setting, enter into clean mode when melting

10		Mark Product Name
11		Select Product to be cooked
12		ºF/ºC Switch
13		CN/EN Switch
14		Switch to idle

C、Basic Operation

1、Shut off

Fryer Shuts off when power is disconnected or oil relief valve is "closed" (Connected). Fryer turns on when Power is connected and oil relief valve is "open" (disconnected)

2、Melting

Fryer enter into cooking modes when oil temperature exceeds 110℃ when machine starts; Fryer enter into melting mode otherwise

Press and hold "product" key to stop melting and enter into cooking modes directly.

3、Clean mode

Press "timing key" to enter from melting mode to clean mode in melting mode; Fryer enter into clean mode when clean temperature is reached in clean mode, timer counts for clean timing, an alarm is actuated when timing completes. Exit cleaning by turning machine off

4、Cooking Mode

Cooking is set for one basket and two baskets, one timer works when only one basket is in cooking, and 2 timers work when both baskets are in cooking.

5、Idle mode

In idle mode, when fryer is waiting, it is possible to enter into idle waiting mode; there are 2 different ways to enter into idle mode.

1）Enter into idle mode from timer automatically
2）。Press temperature sustaining bottom, to enter into idle mode automatically.

6、Oil Filtration Lock
Oil filtration alarms when fry time counts or percentage goes to set number when oil filtration reminding is in place. Oil filtration locks machine when fry time counts or percentage goes to set number when oil filtration lock is in place.

Oil filtration lock resets when oil relief valve "close" (connected) for more than a half minute.

D、enquiry
Press INFO to check working status

1. clock
2. oil change date
3. machine start time
4. cook times
5. stop times
6. oil change times percentage
7. oil change time percentage

Press "P" to set "time" at the moment.

E、Error and alarm status
For hereunder alarms

index	Display	Explanation
1	Alarm1 Hot	Oil temperature too hot
2	Alarm 2 Err	Sensor Error
3	Alarm3 Oil Filtration lock	Oil Filtration locked
4	Alarm4 Oil Changeover Suggested	Oil Changeover Suggested
5	Alarm5 Oil Change Reminding	Oil Change Reminding

F、Program
When machine is switched on, before enter into timing mode, press "P" to enter into product parameter

program mode.

Press p and hold for 5 second to exit program mode, or wait fro 2 minute to exit program mode automatically.

G、Product Parameters
Set product parameter for 12 different products in this mode

Parameters to be set

Content	Function
（NAME）	Set Product Name
（COOK TIME）	Set Cook Time
（TEMP）	Set Fry temperature
（COOK ID）	Set Product Code
（LOAD COMP）	Set Temperature Compensation
（LCOMP REF）	Set Temperature Compensation Reference
(Alarm setting)	Set alarm time, 4 different alarm types
（QUALITY TMR）	Set Quality time
(Oil filtration setting)	In GLOBAL mode, set parameter "FILTER INCL" to select if filtering times are counted in product timing. In "MIXED" mode, set "FILTER AFTER" for time counts of fry for filtering.

Press and hold "P" to enter into password page when machine is shut off, confirm password by pressing "P"
H、Special Parameter
Password 0001 to enter
Set hereunder special parameters in special parameter program page

Content	Function
SP-1	Select Basket 1 to 2
SP-2	Set melting mode, 1 for liquid form oil, 2 for solid form oil
SP-3	Set oil change times
SP-4	Set oil change time
SP-5	Set clean time
SP-6	Set clean temperature

SP-7	Set sustained temperature
SP-8	Set temperature sustaining timer
SP-9	Set oil filtering reminding mode 1- OFF = no oil filtering function 2- MIXED= different oil filtration limit for different products 3- GLOBAL = same oil filtration limit
SP-9A	Oil Filtering Temperature
SP-9B	Use oil filtration Lock
SP-9C	oil filtration reminding percentage
SP-9D	oil filtration locking percentage
SP-9D	Oil filtering times

I、Oil change reset

oil filtration lock and oil change reset

input 9992 to reset oil change

Oil filtration lock only happens when oil relief valve opens and after being kept open for more than 25 seconds. '。。' is printed at the back side of oil relief valve.

J、internal parameter

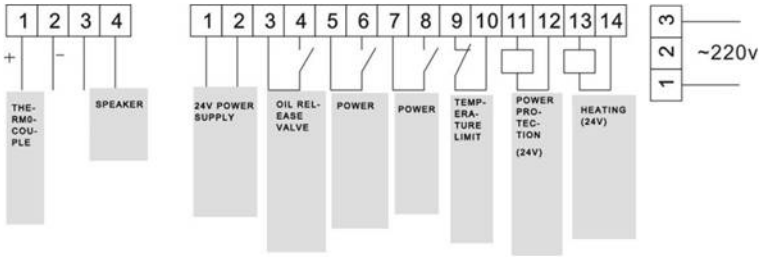
1. input password 0005 to set heating parameters

Content	Function
SET RT	Set temperature correction value
SET HP	Set Temperature Scale
SET DB	Set Heating dead zone
SET TM	Set Control for computing mode

Input password 0018 to reset system

Reset System Parameters

K、Wiring diagram control panel



L、Other instruction for operations

1、 Take off lid if it is detachable, cover pot when cook finishes.

2、Cut off power when fryer is not in use to ensure safety

3、Cut off power; wait until oil inside of fryer cools down before cleaning up oil from pot. Put oil sink under the fryer. Open oil relief valve, same like when installation is processed.

4、To make sure that the fryer is safe and durable, users shall clean residual in oil and contaminations on heaters to ensure oil and heater functions correctly and in clean status. Use may set oil filtration procedure in control panel and follow the procedure when oil filtration is processed.

5、The machine is equipped with and oil filtering pump at it bottom. When oil filtering is needed, turn off oil relief valve. Switch oil pump to "on" position by turning the switch on the front panel, oil filtration now starts; to make sure that oil remains clean and to get rid of residuals, oil filtering screen shall be wrapped with oil filtering bag. Power shall be cut off as soon as we find pump motor can't be started. The reason might be pump head is clogged by oil residuals. In this case pump head shall be dissemble for cleaning, motor maybe damaged when it can't start for a period of time. PLS reference disassembly guiding (figure 1-4)

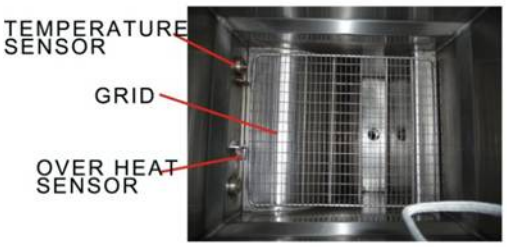


图7

图8

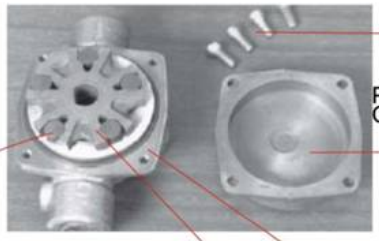
图9

图10

图11

DISASSEMBLY OF PUMP
（图3）

（图5）



（图4）

图6

Pay attention to oil level when oil is filled, oil level filled shall be controlled in between top and bottom limit set as reference to Figure (11)

N、Heater disassemble sketch, Figure (12-13)

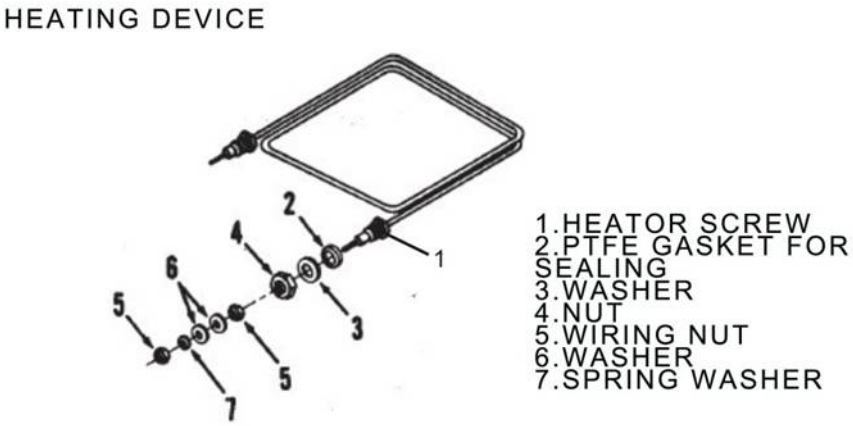


图12

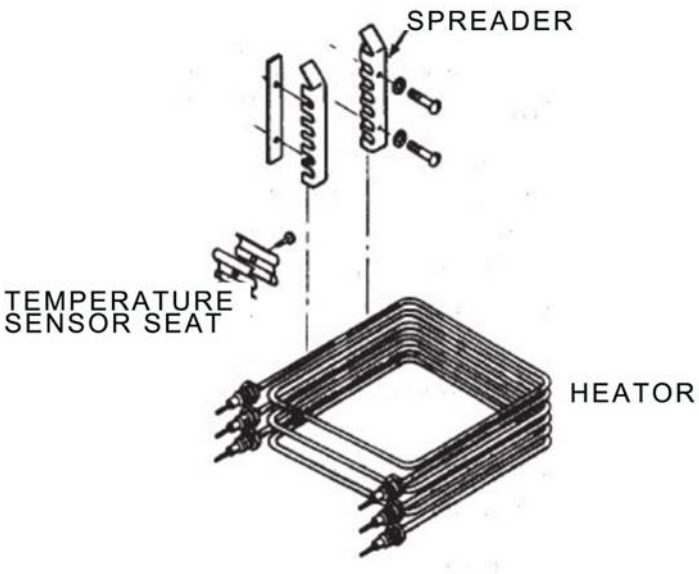
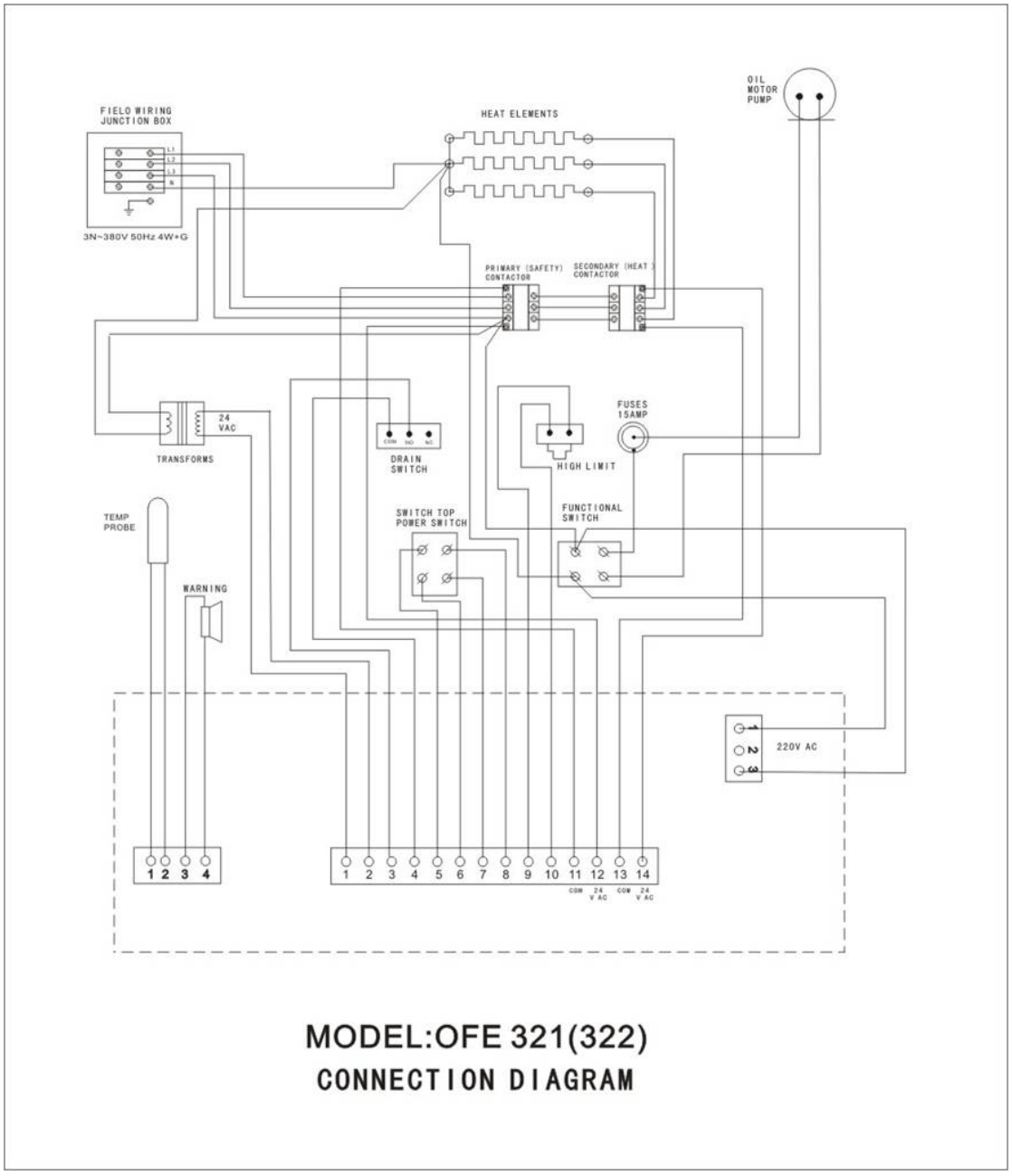


图13

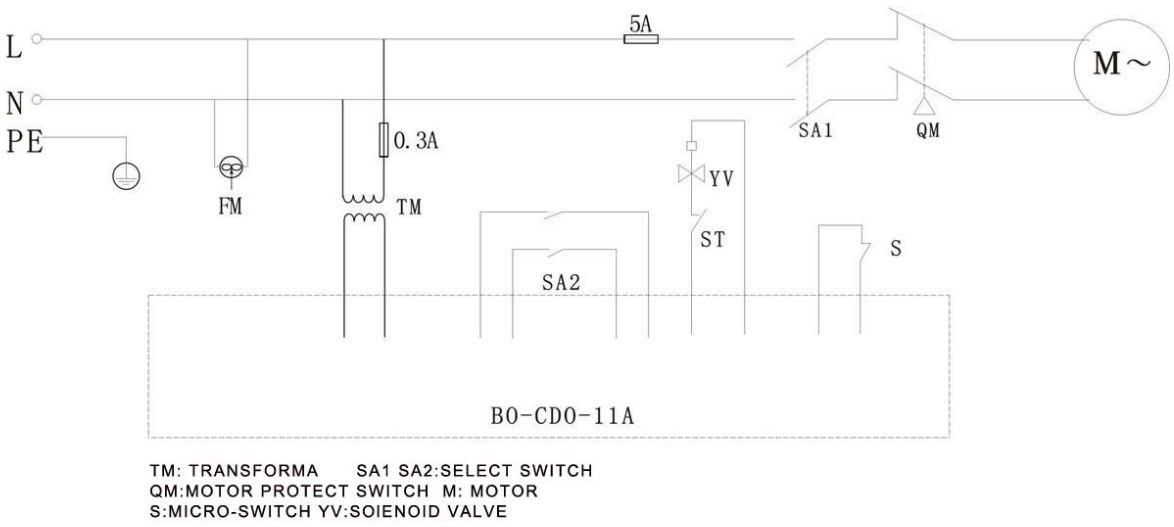
MAKE SURE TO FIX THE SPREADER CORRECTLY TO ENSURE HEATING DEVICE TO SECURE HEATING DEVICE STEADILY.

O、Exterior Sketch

P、OFE320 serial electrical fryer wiring diagram



MODEL: OFG-321 ELECTRICAL DIAGRAM



Q、Gas fryer Burner control unit and operation guide

1、 Burner control of Gas Fryer

The system uses liquefied gases, natural gas and man-made gas, with a dedicated gas control valve (continue Flame, thermocouple, electrical ignition and gas volume regulation) incorporated with temperature controller and solenoid valve, to process electrical ignition, temperature sustaining control, dead flame protection and flame regulation to the "m" shaped burner jet head. It ensures safe and reliable control to gas burning control.

Theory of working: trigger ignition with Piezoelectricity induction type igniter, push high voltage to the ignition end, discharge power from clearance between 2 charged poles, the flare created ignites gas that's how continue flame is generated.

The thermocouple triggers gas switch after being heated, then gas is guided to the burner head and ignited by the flame at the end of burner. Gas flow is regulated to the normal rate by regulating gas regulator. When the temperature of burner is heated above the set ones, the temperature controller will adjust the solenoid valve locating at the gas line, shut off solenoid valve, burner stopped by cutting off gas supply. When temperature goes under the set number, temperature system issues again a command to open solenoid valve, burner is again charged with gas and ignited by the continue flame. The cycle runs, that's how

temperature is kept in the range.

To avoid leaking when the fire may be killed by any accident, continue flame is employed to recover burning. Burner is kept working as long as the continue flame is in place. When continue flame is killed by any kind of incident, it will virtually result in stopping heating of the thermocouple, the thermocouple will cut off regular valve, that's how safety is ensured.

。

2、Technical data

Voltage：～220V50Hz

Gas Type： liquefied gases, natural gas and piped man-made gas

Gas Pressure：2800Pa(Ref.)

Highest working Temperature：200℃

2 Gas System operation guide (for Electrical operation PLS reference page 8-11)

3 Connect gas pipe line when manual gas valve is turned off; make sure all connections are well sealed and free from any types of leaking. Open gas valve, press electrical ignition button after wait until gas is filled to pipeline (ref. figure 1,2)

Figure 1

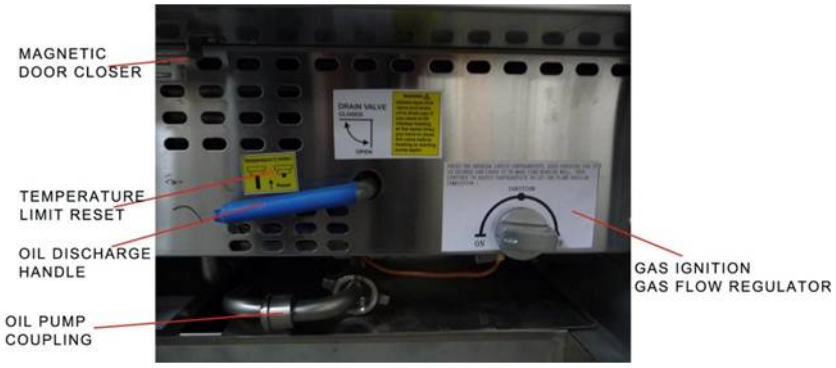
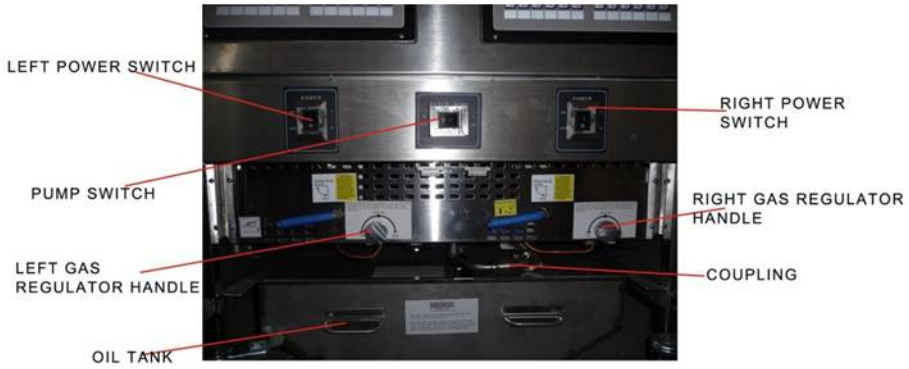


Figure 2 322 Sketch



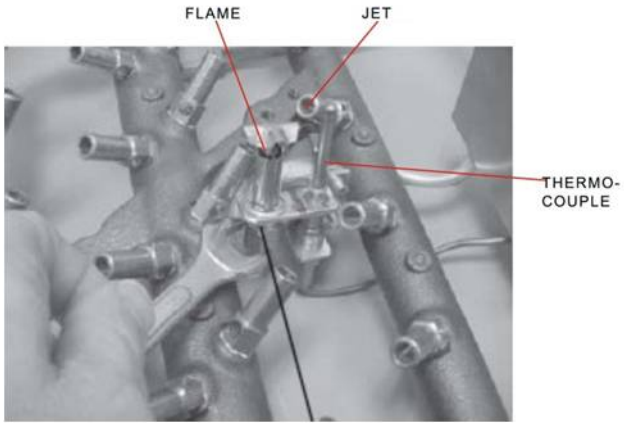
3）After a voice of "click" is sound, the continue flame is ignited. Hold the button for a short while to keep the flame, the thermocouple is to secure the flame. (If ignition fails for the 1st time, it may be retried for the 2nd and 3rd time. It may show mal function of ignition mechanism if ignition doesn't work out for many times. Turn button anticlockwise to adjust size of burning until the blaze goes to Maximum size.

Figure 3

Press the handle & contrarotate to ignite,
loosen it after 20 Seconds to make it burn well.
Then contrarotate the handle again to adjnst
the flame
IGNITION
ON

ELECTRIC IGNITION, FLOW RATE REGULATION

Figure 4

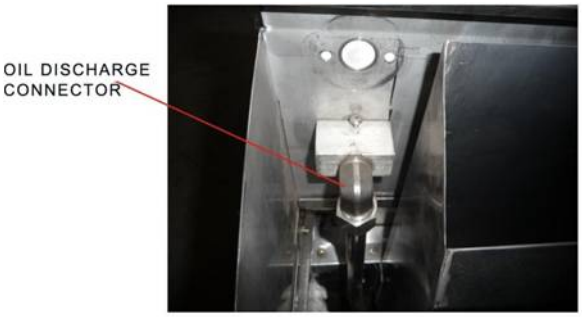


Note: make sure oil relief valve is at "off" position during ignition is processed.

Temperature of oil in pot will gradually increase after burner is ignited. Fry may be carried out when set temperature is reached. Adjust time of cook according to requirement of product. The pot is designed for

two baskets for different food with different time settings, so the machine is equipped with 2 stand alone time control buttons (6 buttons for each group) to make sure fry is processed in due set time.

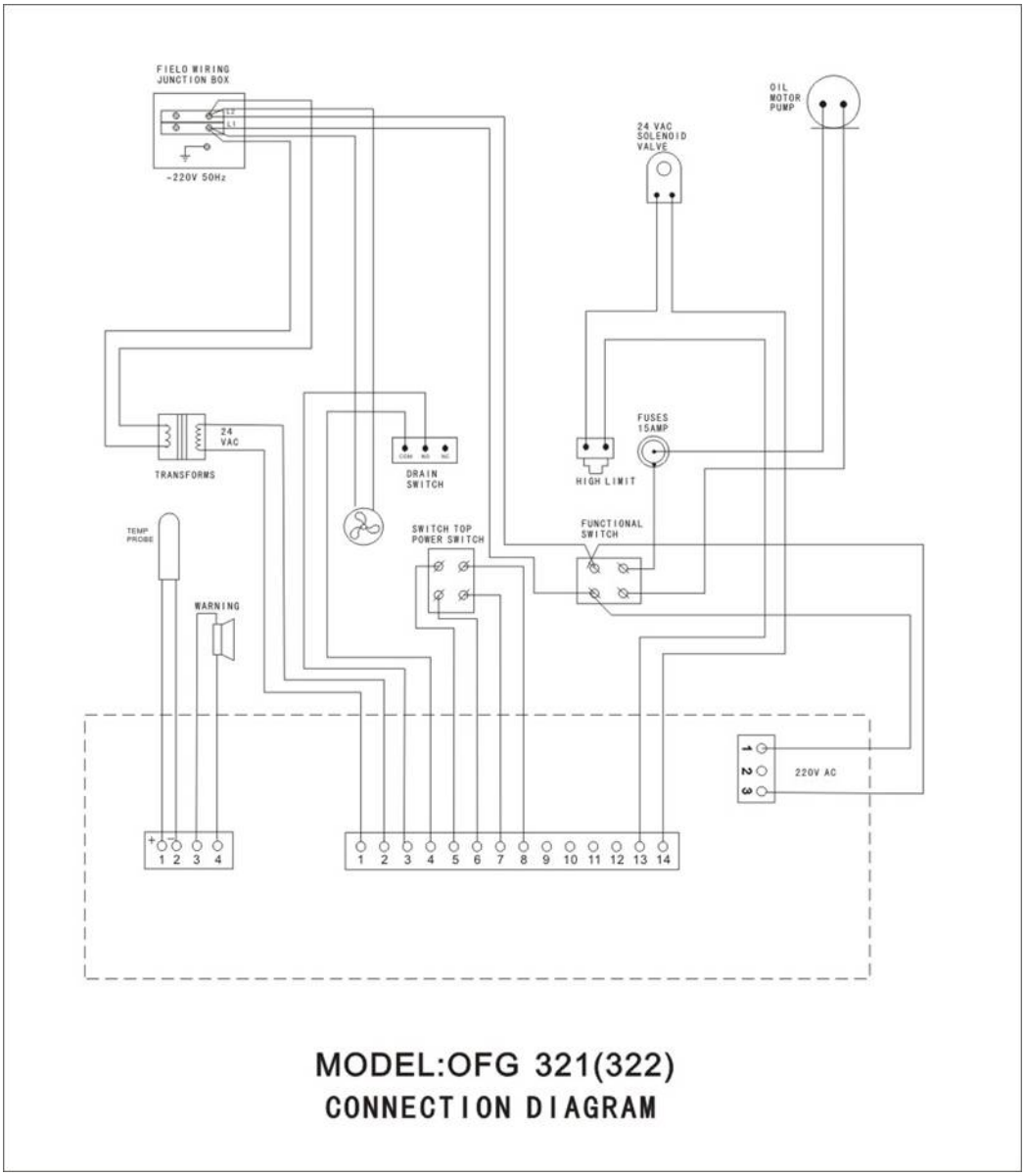
Figure 5 Figure 6



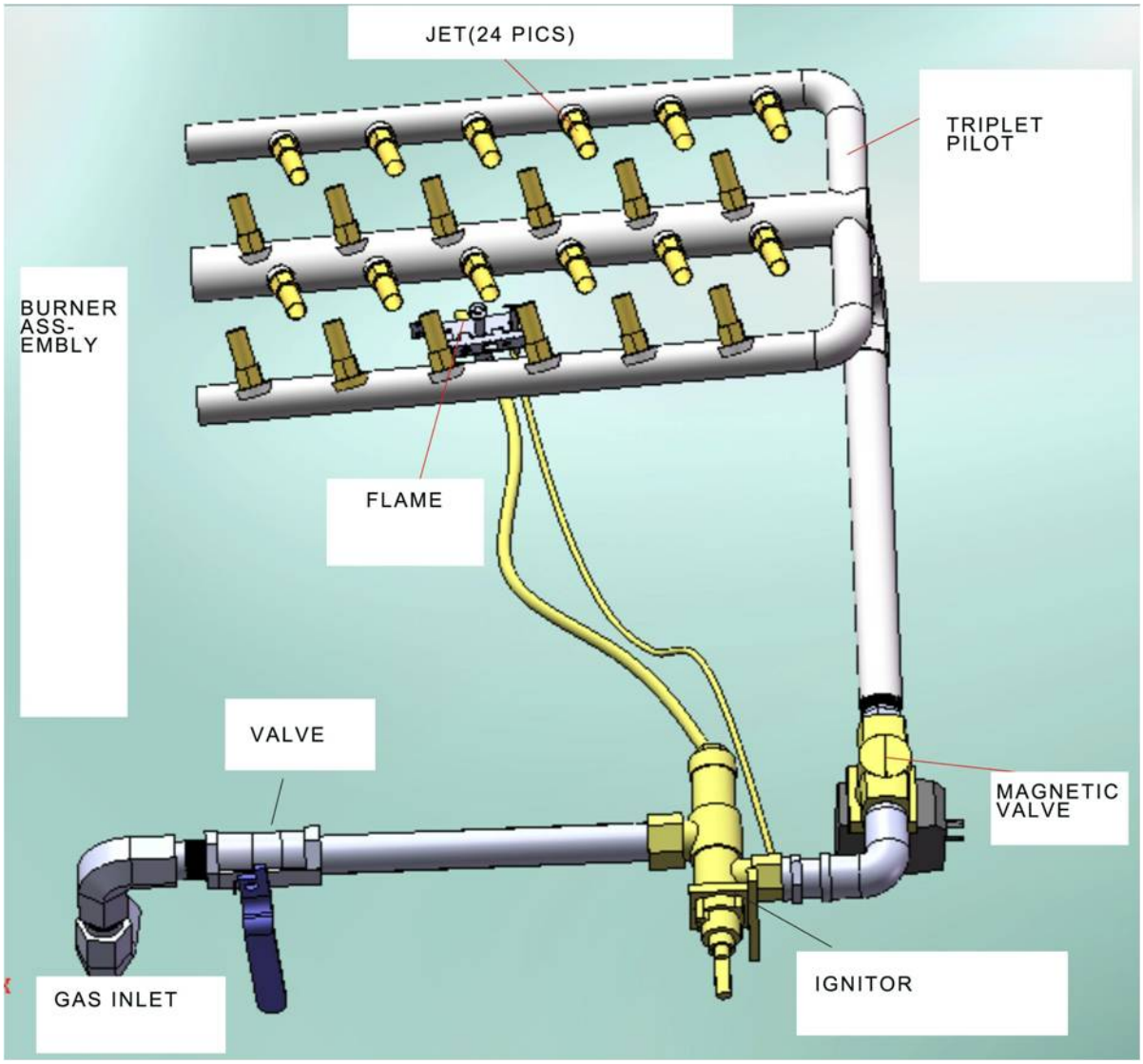
TURN THE JET ANTICLOCKWISE WITH WRENCH, TAKE JET OFF. PUT HIGH TEMPERATURE RESISTANT SEALANT BEFORE THE JET IS REINSTALLED.

Note:
To stress again, for any fryer powered by gas, it is necessary to employ strong ventilation installation to pull the exhaust air to the out doors. It could result in bad air pollution, which could result in poisoning and injury even death.

5、OFG320 Serial - Gas fryer wiring diagram



6、Burner Sketch



7 Two pot gas fryer Sketch